

ca

2

The stability toward rupture of adsorbed films on the air-sapponin boundary of aqueous solutions. N. M. Frenkelman. *J. Phys. Chem.* (U. S. S. R.), 1, 721 (1930). cf. C. A. 27, 216.—By the method of a spinning float the stability of an adsorbed film of sapponin soln. of varying concns. and the speed of its formation were studied.

G. Frenkelman

A 50-524 METALLURGICAL LITERATURE CLASSIFICATION

Co

Flotation of copper oxide ores. DAVIDOVICH AND N. M. LURMAN. *Favinsula Metallus* 5, 1977 91(1980); *Chimie & Industrie* 25, 618. Cu oxide ores are difficult to treat by flotation, and their surface must be rendered hydrophobic. By sulfurization there is formed a thin film of sulfide which permits of sepn. by flotation. The consumption of reagents per ton of ore is: 1-1.5 kg. Na₂S, 400 g. Am. xanthate, 200 g. pine oil. Flotation without sulfurization gives similar results, but the consumption of xanthate is 1.5 kg. per ton. The yield is 60-80% Cu, according to the nature of the ore.

A. PAPINEAU-COUTURE

ASH-514 METALLURGICAL LITERATURE CLASSIFICATION

QA

PROCESSES AND PROPERTIES INDEX

Froth formation and flotation ability of powders in solutions of surface-active substances. N. M. LUNMAN. *Tsvetnitsa Metal.* 1931, 854 GG.—The froth-forming ability and the stability of the froth were detd. in aq. solns. of isoamyl alcohol, α -naphthylamine and *m*-cresol at different concns. In all cases the max. frothing was found at small concns. before the satn. of the adsorption layer had been reached. In satd. aq. solns. of the reagent the froth formation is nil in isoamyl alc. and *m*-cresol (neutral and acid reagents). For alk. reagents it is small. On shaking satd. solns. a fairly stable emulsion is obtained. For acid and basic frothers, neutralization (adding NaOH to cresol and HCl to naphthylamine) accompanied by dissoen. of surface-active mols. into inactive ions causes a sharp decrease of the frothing ability simultaneously with the lowering of surface activity (adsorption). These results make possible the detn. of the optimum conditions for froth formation. The max. flotation ability either coincides with the max. froth formation or is slightly shifted on account of adsorption. There appears to be certain hysteresis in flotation. The collecting ability and the stability of the three-phase foam were studied. Dissoen. of the mols. of basic and acid frothers caused by the addn. of HCl and NaOH increases the flotation ability because on the surface of the solid particles the ions are more active (stronger adsorption) than mols. in contradistinction to the soln.-air boundary. The max. flotation ability of a dissoed. frothing agent coincides with the max. stability of a two-phase froth with undissoed. frother.

B. N. DANILOFF

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

ch

Stabilization in disperse systems of adsorbed layers. XI. Surface tension in adsorbed films and stability of foams. N. M. LURMAN. *J. Phys. Chem.* (U.S.S.R.) 3, 204-20 (1932).—Surface tension as shown by the shape of the membrane between two phases and the influences thereon of a third substance were observed. Saponin solutions, the systems water-toluene- α -naphthylamine, water-HCl-toluene- α -naphthylamine, water-toluene-*m*-cresol, water-NaOH-toluene-*m*-cresol, toluene-water-oleic acid, water-*m*-cresol-isamyl alc., and water-*p*-toluidine-Et malonic ester were studied.

I-I R

Physicochemical studies of froth destruction in flotation. N. M. Lutsman, *Izvestiia Metal.* 1932, No. 7, 8, 28-42; cf. C. A. 26, 6884. —The destruction of the 2-phase and the 3-phase (mineralized) froth was studied by eliminating the frother from adsorption layers on the froth films with reagents of greater surface activity and smaller surface tenacity. As the destruction layers isomyl alc., EtOAc and Et ethylmalonate were used, and as frothers, typical flotation reagents such as terpineol, toluoline and *m*-cresol. The surface tenacity of films, held by their resistance to rupture, is connected with the stability and conditions of destruction of the froth. The isotherms and the curves of kinetics of surface tenacity were detd. for a series of surface-active substances of both classes by the method of float, and membrane effect. For a final detn. of the mol. kinetic mechanism of froth destruction an investigation was made of the action of amyl alc. on the surface tenacity of saponin. Very small concns. of amyl alc. lower the tenacity of the surface film of the soln. to zero. Since in the process of destruction of the 3-phase (mineralized) froth, the mineral particles possess the property of strengthening the froth, the 3-phase froth can be easily destroyed by adding flotation poisons—protective colloids. The latter by themselves form a stable froth, but in this case act destructively because they expel the reinforcing mineral particles from the froth. B. N. Dandloff

R. N. Daniloff

CA 7

1ST AND 2ND ORDERS PROCESSED AND PROPERTIES ALICE

Sedimentometric analysis of slimes N. Lubman
Trans. Metal. 1933, No. 1, 44-61. Expts. conducted
 by L. indicated that the dispersion analysis, as developed
 by G. Wiegner and Sven-Oden for soil investigations, can
 be utilized also for quant. control of highly dispersed
 phases in ore flotation. The investigation showed, how-
 ever, that to obtain a true picture of the state of dispersion
 as the result of grinding, it is necessary to stabilize the
 suspension. It was proved that with complete stabili-
 zation the distribution of slime particles is independent
 of viscosity and other mol. properties of the liquid medium.
 The process of stabilization of hydrophilic and hydro-
 phobic minerals in water and hydrocarbon media of vary-
 ing viscosities was investigated. The most suitable
 stabilizers were found to be alizarin red in aq. alkali
 media, and oleic acid in hydrocarbon media. The sedi-
 mentometric methods and technic, however, are not
 sufficiently developed to be adopted for practical use.
 H. N. Dambol

COMMON ELEMENTS

DETAILS

ASAC-5LA METALLURGICAL LITERATURE CLASSIFICATION

1930-1939

1940-1949

1950-1959

1960-1969

1970-1979

1980-1989

1990-1999

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2010-2019

2020-2029

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Ca

~~Wetting~~ of mineral powders and the phenomenon of flotation of mineral surfaces. N. M. Lubman. *Gorn.-Obolitel. Zhur.* No. 9-10, 30-32(1937).--The wetting of ZnS was measured by detg. the speed of satn. (*C. A.* 29, 744^a) and by direct detm. of the hysteresis of wetting. The latter method consists of measuring the marginal angle of wetting on a layer of the mineral powder which was glued to a Pt surface with the aid of Canada balsam by evapng. its toluene soln. The activation of ZnS by Cu⁺⁺ was fully investigated. For this purpose various concns. of CuSO₄ were evapd. from the ZnS surface in a vacuum desiccator in order to obtain powders with varying adsorption capacities and on which wetting measurements were then taken. The wetting showed a decrease which is due to the formation of an "active" CuS layer. This decrease was confirmed by flotation expts. The mech. hysteresis of wetting increased rapidly when changing from mono- B. Z. Kamich

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SUBJECT INDEX		AUTHOR INDEX	
1ST AND 2ND LETTERS	3RD AND 4TH LETTERS	1ST AND 2ND LETTERS	3RD AND 4TH LETTERS
A	B	A	B
C	D	C	D
E	F	E	F
G	H	G	H
I	J	I	J
K	L	K	L
M	N	M	N
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<p>Investigation by the wetting method of zinc sulfide activation in the presence of covellite. N. M. Lulman. <i>Gorno-Obogetel, Zhur.</i> No. 2, 39-40, 1938; <i>U.S.S.R.</i> 32, 1217. - Wetting tests with mixts. of dispersed ZnS and CuS showed an "activation" of ZnS by Cu ions. Natural ZnS which had been treated with 0.01% xanthate showed no noticeable decrease in wetting. But various mixts. of ZnS and covellite which had been treated with 0.01% xanthate yielded a powder that could not be impregnated even when covellite in mixt. was only 0.5%. B. Z. K.</p>																																																			
<p>ASP-55A METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

[illegible]

LUEMAN, N. M.

Laboratory of Petroleum Beds, Institute of Mineral Fuels, Academy of Sciences, USSR.

"Surface Activity of Neutralized Sulfurated Oils" Iz. Ak. Nauk. SSSR. Otdel. Tekh. Nauk. Nos. 10-11 1944.

BR-52059019

C.A.

22

Effect of the pressure and the temperature on the surface tension of petroleum. M. M. Kusakov, N. M. Lubinait, and A. Yu. Koshevnik (Petroleum Inst., Acad. Sci. U.S.S.R.). *Doklady Akad. Nauk S.S.S.R.* 74, 319-22 (1980).—Measurements up to pressures of 300 kg./sq. cm. were made by method of hanging and of lying liquid drops, and checked, with satisfactory agreement, by the method of max. pressure of a gas bubble. For a Devon petroleum, the surface tension σ against N_2 was found to decrease regularly with increasing pressure, the faster the lower the temp. (30, 60, and 80°); e.g., at 30°, σ fell from 26 to 13 ergs/sq. cm. between 1 and 250 kg./sq. cm. However, the surface tension in contact with H_2O , at 20°, remained unchanged up to 300 kg./sq. cm. Likewise, under the const. pressure of 1 kg./sq. cm., σ at the boundary with H_2O is independent of the temp. The contact angle of calcite, in a N_2 atm., varies very little with the pressure. N. Thom

LURMAN, N. M.

PA 243T11

USSR/Chemistry - Petroleum;
Liquid Fuels

Jul 52

"Determining the Surface Tension of Liquid Hydrocarbons and Petroleum Crudes by the Drop-Size-Measurement Method," M. M. Kusakov, N. M. Lubman, A. Yu. Koshevnik

"Trudy Inst Nefti" Vol 2, pp 53-72

A critical review of methods for this type of measurement. Authors describe equipment for this purpose which they designed. Show on the basis of their data that the surface tension at the boundary oil-water of nonpolar oil and of crude

243T11

Petroleum is practically independent of the temp in the range 20-80°. Established that the method of surface tension measurement in question can be used when other methods fail, and that it is applicable to highly viscous liquids which wet glass well.

243T11

LOBMAN, N.M.

Chemical Abstracts
May 25, 1954
General and Physical
Chemistry

④ 8
Determination of the surface tension of liquids from the
dimensions of a sessile drop. A. Yu. Koshchynik, M. M.
Kusakov, and N. M. Lobman (Petroleum Inst., Acad.
Sci. U.S.S.R., Moscow). Zhur. Fiz. Khim. 27, 1887-90
(1953).—A detailed table, based on the calcns. of Bash-
forth and Adams (1883), is given for detg. surface tension
from the width and height of sessile drops. J. J. R.

LUBMAN, N. M.

AID - P-190

Subject : USSR/Engineering

Card : 1/1

Authors : Kusakov, M. M., Lubman, N. M. and Koshevnik, A. Yu.

Title : Measuring Installation for Surface Tension of Oil and
for Boundary Angle of Wetting in Strata Conditions.
(Part I).

Periodical : Neft. khoz., v. 32, #2, 27-32, F 1954

Abstract : Method and optical apparatus for measuring of the surface
tension of oil, water and gas are described with five
detailed drawings. The test procedure and conclusion are
given in the next issue (#3, p. 20).

Institution : Experimental Mechanical Plant of the Petroleum Inst.
of the Academy of Sci., USSR.

Submitted : No date

LUBMAN, N. M.
LUBMAN, N. M.

AID P - 203

Subject : USSR/Engineering

Card : 1/1

Authors : Kusakov, M. M., Lubman, N. M. and Koshevnik, A. Yu.

Title : Measuring Installation for Surface Tension Oil and
Boundary Angles of Wetting under Stratum Conditions
(Part II)

Periodical : Neft. khoz., v. 32, #3, 20-22, Mr 1954

Abstract : A description of the general arrangement of testing
equipment and of testing procedure for the determination
of surface tension on the boundary with gas and water
and boundary angles of wetting. One diagram and
6 Russian references (1930-51).

Institution : None

Submitted : No date

LUBMAN, N. M.

AID P - 1102

Subject : USSR/Mining

Card 1/1 Pub. 78 - 13/21

Authors : Kusakov, M. M., Lubman, N. M. and Koshovnik, A. Yu.

Title : Surface tension of petroleum on boundary of gas and water phases at stratum conditions

Periodical : Neft. khoz., v. 32, #10, 62-69, 0 1954

Abstract : The study of surface tension and density of petroleum of three types (Puymazin, Termiz and Nebit-Dag) is described. The study was conducted at temperatures and pressures corresponding to the stratum conditions (about 80°C and 250 atm). The surface tension decreases with the rise of pressure and is faster at lower temperatures. The character of decrease is more complicated at a boundary with a water phase than with a gaseous phase. Eight charts, 1 table and 2 Russian references out of 12 (1950-1954).

Institution : None

Submitted : No date

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030710010-8

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030710010-8"

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030710010-8

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001030710010-8"

LUBMAN, N. M.

with A. Yu. Koshevnik and M. M. Kusakov "Study of the Effect of Pressure on the Selective Saturation of Quartz Rocks with Water or Crude Oil"

with Kusakov, M. M. and A. A. Kocheshkov "Influence of Pressure on the Speed Rate of Capillary Saturation of Porous Formations"

Transactions of the Petroleum Institute, Acad. Sci. USSR, v. 11, Oil Field Industry, Moscow, Izd-vo AN SSSR, 1958. 346pp.

KOCHESKOV, A.A.; KUSAKOV, M.M.; LUBMAN, N.M.

Mechanism of the capillary percolation and propulsion in
porous media. Izv.vys.ucheb.zav.; neft' i gaz 1 no.11:
59-64 '58. (MIRA 12:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akad.I.M.Gubkina.
(Capillarity)

KOCHESHKOV, A.A.; KUSAKOV, M.M.; LUBMAN, N.M.

Effect of pressure on the speed of capillary percolation of
polar liquids in porous media. Izv.vys.ucheb.zav.; neft' i
gaz 1 no.12:69-76 '58. (MIRA 12:4)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlen-
nosti im. akad.I.M.Gubkina.
(Capillarity)

LUBMAN, N. M.

65-58-4-10/12

AUTHORS: Kusakov, M. M., Landau, M. A., Lubman, N. M., and Shchedsko, M. I.

TITLE: Calcium Hydride Method for Determining the Content of the Water in Fuel When Taking into Account the Kinetics of Evolution of Hydrogen (Gidridkal'tsiyevyy metod opredeleniya sodержaniya vody v toplive s uchetom kinetiki vydeleniya vodoroda)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, ³ № 4, pp 55 - 61 (USSR)

ABSTRACT: The solubility of water in hydrocarbon liquids, and partly in fuels and oils depends in a varying degree on their chemical composition and on the temperature (Refs. 1 and 2); the liquids are very hygroscopic. The calcium hydride method is one of the most important amongst the physical and chemical methods of determining the water content in hydrocarbon liquids (Refs. 3 - 8). It is based on measuring the volume (V method) or the pressure (P method) of hydrogen, separated during the reaction of calcium hydride and water. Formulae are derived for calculating the water content according to both methods (formulae 2 and 7). When excess calcium hydride is reacted with water a second order reaction takes place. A graphical method for the determination of the volume or pressure of hydrogen is also given.

Card 1/2

65-58-4-10/12

Calcium Hydride Method for Determining the Content of the Water in Fuel When Taking into Account the Kinetics of Evolution of Hydrogen

A second variation of the P method makes it possible to determine the content of water in hydrogen liquids with an accuracy of about 3%. This method is recommended for Research Institutes for determining the waters dispersed in the form of very fine drops. When calculating the evolution of hydrogen according to the V method it is possible to shorten the time of the experiment, and to increase the accuracy of measurements to about 3% - 5%. Formulae for calculating the reaction kinetics of the interaction of calcium hydride in water are given (formulae 8 - 10). Experiments were carried out with synthetic mixtures of the fuel T-1 and petrol B-70 with water in reaction pumps (Fig.1). Table 1 and 2 show results of experiments according to the V method and P method respectively. There are 4 Figures, 2 Tables, and 10 References: 6 Russian, 2 English and 2 German.

ASSOCIATION: Petroleum Institute AS USSR (Institut nefti AN SSSR)

Card 2/2

1. Water-Determination
2. Calcium hydride-Applications
3. Fuels-Impurities

KOSHEVNIK, A.Yu.; KUSAKOV, M.M.; LUBMAN, N.M.

Effect of pressure on the selective wetting of quartz with
water and oil. Trudy Inst.nefti 11:264-270 '58. (MIRA 11:12)
(Quartz)

KUSAKOV, M.M.; LUBMAN, N.M.; KOCHESHKOV, A.A.

Effect of pressure on the speed of capillary impregnation of
porous media. Trudy Inst.nefti 11:271-282 '58. (MIRA 11:12)
(Capillarity)

5(4)

AUTHORS:

Koshevnik, A. Yu., Kusakov, M. M.,
Lubman, W. M.

SOV/76-33-1-33/45

TITLE:

The Influence of Surface Active Substances on the Motion of Gas Bubbles in Hydrocarbon Liquids (Vliyaniye poverkhnostno-aktivnykh veshchestv na dvizheniye gazovykh puzyr'kov v uglevodorodnykh zhidkostyakh)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 1, pp 197-203 (USSR)

ABSTRACT:

The gas diffusion in a liquid determines the solubility of the gas at stationary as well as agitated phase boundaries. The influence of surface active substances on the solution process of gases, e.g. on pressure extraction of petroleum, or the petroleum transportation in pipes, is of special importance. The influence of an adsorption layer in the separating phase layer had been commented upon earlier in publications (Ref 1). In the case under discussion tests were carried out in pure apolar petroleum and in real and colloidal solutions of various surfaces of active substances; and the influence of these substances on the solution kinetics of the air bubbles in petroleum was investigated. A glass implement was used for

Card 1/3

The Influence of Surface Active Substances
on the Motion of Gas Bubbles in Hydrocarbon Liquids

SOV/76-33-1-33/45

observing the air bubbles (Fig 1) and the size of the air bubbles was measured to an accuracy of 10μ by means of a microscope. The implement was in a thermostat at $20 \pm 0.02^\circ\text{C}$. The rising velocity and the change of the air bubble size in connection with it was determined as a function of the air diffusion into the petroleum. Two samples of a kinematic viscosity of 85 and 137 ccm were used as apolar petroleum and air bubbles of a diameter from $100-900\mu$ were measured. It is stated (Fig 3) that, in this case, the equation by Stokes (Stoks)(2) is valid without a correction according to Hadamard-Rybczinski (Adamar-Rybchinskiy)(Refs 4, 5), i.e. small gas bubbles of this dimension react like solid spheres. Tests in variously concentrated heptylic acid solutions (in petroleum $\nu = 85$ ccm) and with palmitic acid, hexyl and cetyl alcohol and β -naphtylamine showed that the diffusion air/petroleum becomes more difficult with the concentration rise of these substances whereas the rising velocity of the air bubbles is not influenced.

Card 2/3

The Influence of Surface Active Substances
on the Motion of Gas Bubbles in Hydrocarbon Liquids

SOV/76-33-1-33/45

The colloidal solution of a polymethyl-siloxane liquid in petroleum showed, beside the diffusion stopping, also a decrease of the rising velocity of the air bubbles. The equation by Boussinesq (Bussine)(Ref 7) could not be investigated for lack of experimental data. There are 5 figures and 7 references, 1 of which is Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut nefti (Academy of Sciences, USSR, Institute of Petroleum)

SUBMITTED: July 10, 1957

Card 3/3

KUSAKOV, M.M.; LUBMAN, N.M.; KOSHEVNIK, A.Yu.; KOSHELEVA, I.M.;
MEKENITSKAYA, L.I.

Studies of the physical chemistry of oil layers. Trudy Inst. geol.
i razrab. gor. iskop. 2:71-80 '60. (MIRA 14:5)
(Oil reservoir engineering)

KUSAKOV, M.M.; LUEMAN, N.M.; SHCHETSKO, M.I.

Investigating the state and distribution of water in fuel. Khim. i
tekhn. topl. i masel 5 no. 8: 63-66 Ag '60. (MIRA 13:8)

1. Institut neftekhimicheskogo sinteza AN SSSR.
(Liquid fuels) (Water)

LUBNIN, A.I.

File foundations for industrial, farm, and residential buildings:
In the Engineering Council of the State Committee on Construction
of the Council of Ministers of the U.S.S.R. Osn., fund. i mekh.
grun. 7 no.1:25-26 '65. (MIRA 18:4)

VAD'YAYEV, G.M., inzh.; LUBNIN, A.I., inzh.

A new design for foundations of the equipment of rolling and pipe mills. Prom.stroi. 40 no.4:27-30 '62. (MIRA 15:5)

1. Gosudarstvennyy soyuznyy institut po proyektirovaniyu metallurgicheskikh zavodov.
(Metalworking machinery--Foundations)

LUBNIN, A.I.

Accelerate the introduction of new three-dimensional plans and design details. Prom. stroi 40 no.7:4-8 '62. (MIRA 15:7)

1. Gosudarstvennyy soyuznyy institut po proyektirovaniyu metal-lurgicheskikh zavodov.

(Metallurgical plants---Designs and construction)

LUBNIN, Aleksandr Il'ich, inzh.; LIBERMAN, Semen Abramovich, inzh.;
SKAZHENIK, Georgiy Dmitriyevich, inzh.; MILLER, Viktor
Yakovlevich, inzh.; PETRAKOV, Andrey Ivanovich, inzh.;
USHAKOV, Nikolay Alekseyevich, kand. tekhn. nauk; VAD'YAYEV,
Gavriil Mikhaylovich, inzh.; TIMYANSKIY, Samuil Yakovlevich,
arkh.; KIKIN, A.I., doktor tekhn. nauk, prof., red.; BEGAK,
B.A., red.; SHERSTNEVA, N.V., tekhn. red.

[Designing buildings and structures for metallurgical plants]
Proektirovanie zdaniy i sooruzheniy metallurgicheskikh za-
vodov [By] A.I.Lubnin i dr. Moskva, Gosstroizdat, 1963.
321 p. (MIRA 17:2)

1. Gosudarstvennyy institut proyektirovaniya metallurgiche-
skikh zavodov (for Timyanskiy). 2. Gosudarstvennyy institut
po proyektirovaniyu, issledovaniyu i ispytaniyu stal'nykh
konstruktsiy i mostov (for Petrakov). 3. Tsentral'nyy nauchno-
issledovatel'skiy i proyektno-eksperimental'nyy institut pro-
myshlennykh zdaniy i sooruzheniy (for Ushakov).

LUBNIN, N.P., red.

[Ionizing radiation and heredity] Ioniziruiushchie izlucheniia i nasledstvennost'. Moskva, Izd-vo Akad.nauk SSSR, 1960. 342 p. (Itogi nauki. Biologicheskii nauki, no.3) (MIRA 14:12)
(RADIATION--PHYSIOLOGICAL EFFECT)
(HEREDITY)

BAGUZOV, N.P., arkhitektor; DOBROMYSLOV, N.S., arkhitektor; LUBNIN, A.I.,
inzhener.

Wall and floor design for basic steel works. Stroi.prom. 32 no.12:
17-21 D'54. (MLRA 8:3)
(Metallurgical plants)(Walls)(Floors)

LUBNIN, A. I., LIBERMAN, S. A.

What's new in designing metallurgical plants. Prom. stroi. 38
no.8:39-41 '60. (MIRA 13:8)

1. Constructing a precast reinforced concrete sintering plant.
(Steelworks)

VAD'YAYEV, G.M., inzh.; LUBNIN, A.I., inzh.

Column footings of rolling and tube-rolling mills. Prom. stroi.
39 no. 1:16-18 '61. (MIRA 14:1)

(Rolling mills)

(Foundations)

LUENIN, A.I.

New current instructions for architectural planning of ferrous metallurgy plants. Prom. stroi. 39 no. 2:13-19 '61.

(MIRA 14:2)

(Metallurgical plants)

PROTSEROV, A.V., kand.geograf.nauk; LUBNIN, M.G.

Influence of humidity on the work of the INK-3.5 straw chopper.
Meteor. i gidrol. no.5:52-54 My '65.

(MIRA 18:4)

1. TSentral'nyy institut prognozov.

LUBNY-GERTSYK, A. I.
LYBNEY-GERTSYK, A.

PA 150T86

USSR/Physics - Spectrum, Hydrogen Oct 49
Fine Structure

"A Study of the Fine Structure of the Hydrogen Spectrum by the Radio-Resonance Method,"
A. Lubny-Gertsyk, 1 p

"Zhur Eksper i Teoret Fiz" Vol XIX, No 10

In a work by Lamb and Rutherford ("Phys Rev," 72, 241, 1947), excited hydrogen atoms were driven by a high-frequency electric field of resonance frequency from the metastable state $2S_{1/2}$ into the radiating state $2P_{1/2}$ the number of excited atoms decreasing sharply in the process.

150T86

USSR/Physics - Spectrum, Hydrogen
(Contd)

Points out that this effect may also occur for higher excited hydrogen states and should be manifested in a change in radiation intensity of the spectral line when radiating discharge tube is placed in a high-frequency electric field of resonance frequency. Resulting change in intensity of red line will depend on ratio of number of excited $3S_{1/2}$ atoms to number of excited $3P_{1/2}$ atoms and will be determined by discharge conditions in the tube. Describes unit which could be used to observe this effect experimentally. It may be possible to use this effect to determine magnitudes of term displacement. Submitted 8 Jun 49

150T86

BYCHKOVSKIY, A.I., kand. tekhn. nauk; LUBNY-GERESYK, A.I., kand. fiziko-matemat.
nauk

Method for the design and optimization of pin systems. Teploenergetika
12 no.8:27-34 Ag '65. (MIRA 18:9)

1. Podol'skiy mashinostroitel'nyy zavod i Moskovskoye otdeleniye
TSentral'nogo kotloturbinnogo instituta im. Polzunova.

LUBNY-GERTSYK, A.L.

PA 156T81

USSR/Nuclear Physics - Quantum Theory Feb 50

"Radiation of an Atom Located in a Gap Between
Two Reflecting Planes," A. Lubny-Gertsyk, 5 pp

"Zhur Eksper i Teoret Fiz" Vol XX, No 2

Discusses interaction of atom with quantum elec-
tromagnetic field enclosed by two ideally re-
flecting infinite parallel planes. Obtains ex-
pressions for radiation time and displacement
of atom's radiation frequency. Compares results
of quantum-mechanical calculations with results
of calculation for radiation of classical vi-
brator under similar conditions. Submitted
4 Jun 49.

156T81

LUBNY-GERTSYK, A. L.

AUTHOR:

LUBNY-GERTSYK, A. L.

57-6-30/36

TITLE:

Some New Methods for Radiant Heat Exchange Calculations.
(Nekotoryye novyye priyemy priblizhennogo rascheta radiatsionnogo teploobmena, Russian)

PERIODICAL:

Zhurnal Tekhn.Fiz. 1957, Vol 27, Nr 6, pp 1357-1370 (U.S.S.R.)

ABSTRACT:

First some problems of radiation heat-exchange in an immobile medium are investigated and approximated solutions are found. The radiation coefficient ϵ_q is computed by means of the following three methods:

- 1.) By the method of differential equations, which is not accurate,
- 2.) By the approximated method, which is very similar to that of the integral equations (setting of exact problems),
- 3.) Purely empirically by the generalization of the known approximated equation for the radiation coefficient of an isothermal medium.

Next, a scheme, which in rough outlines represents the properties of a selective gas medium, is investigated, after which an approximated method of computation of a radiation heat exchange is dealt with for the case that the heat-absorbing surfaces are partly located within the radiation space.

Card 1/2

57-6-30/36

Some New Methods for Radiant Heat Exchange Calculations.

In the second part those problems are investigated in which the motion of the medium plays an essential part. A method of computing the radiation of a radiating medium moving over the surface of a screen is shown. (With 4 Illustrations and 6 Slavic References).

ASSOCIATION: Institute for Boiler Turbines "I.I.POLZUNOV", Moscow
(Kotloturbimnyy institut im.I.I.Polzunova, Moskva)
PRESENTED BY:
SUBMITTED: 5.10.1956
AVAILABLE: Library of Congress
Card 2/2

44978

S/170/63/006/001/015/015
B112/B186

21.1000

AUTHORS: Lubny-Gertsyk, A. L., Bobkova, N. A.

TITLE: Generalization of the calculation of the efficiency coefficients of pins and fins

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 6, no. 1, 1963, 118-121

TEXT: The following formula is derived for the coefficients of efficiency of pins and fins:

$$\Phi = \sqrt{P} (-P^K) / (1 - \sqrt{P}) [K - 1/2 + (K + 1/2)P^K] \quad (11)$$

where $P = \alpha_0 \Pi_0 s_0 / \alpha_1 \Pi_1 s_1$, $K = \sqrt{\alpha_0 \Pi_0 s_0 / \lambda b^2 + 1/4}$, $\alpha(x)$ is the coefficient of heat exchange with the heat carrier, $\Pi(x)$ is the diameter of the fin, $s(x)$ is the area of cross section, λ is the coefficient of thermal conductivity and b is a positive or negative coefficient denoting the distribution of the heat exchange according to the height of the fin. The case where formula (11) is accurate is expressly considered.

Card 1/2

Generalization of the calculation ...

S/170/63/006/001/015/015
B112/B186

ASSOCIATION: Moskovskoye otdeleniye tsentral'nogo kotloturbinnogo
instituta imeni I. I. Polzunova, Moskva (Moscow Branch of
the Central Boiler and Turbine Institute imeni I. I.
Polzunov, Moscow) ✓

SUBMITTED: March 27, 1962

Card 2/2

L 21523-66 EWT(m)/EWP(w)/EWA(d)/EWP(v)/T-2/EWP(t)/EWP(k)/ETC(m)-6 IJP(c) JD/HW/EM
ACC NR: AP6009926 SOURCE CODE: UR/0413/66/000/004/0119/0119

INVENTOR: Lubny-Gertsyk, A. L.; Shvartsshteyn, Ye. M.

ORG: none

TITLE: Turbine blade. Class 46, No. 179129

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 4, 1966, 119

TOPIC TAGS: turbine blade, turbine cooling

ABSTRACT: An Author Certificate has been issued for a turbine blade with external "fluid-droplet" cooling. To improve its reliability, the blade is coated with a high-thermal-conductivity material, such as copper. 27 18 [WH]

SUB CODE: 10/ SUBM DATE: 27Feb64/ ATD PRESS: 4222

Card 1/1 dda

1. BEKLEMISHEV, K. V., VINOGRADOV, M. Ye. and LUBNY-GERTSYK, Ye. A.
 2. USSR (600)
 4. Plankton
 7. Effect of mass accumulations of planktonic flora upon animals, smothering of Copepoda and other animals by diatoms, Dokl, AN SSSR 86 No. 5, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

LUBNY-GERTSYK, Ye.A.; PAVLOVSKIY, Ye.N., akademik.

Gravimetric characteristics of the main representatives of zooplankton
of the ~~Okhotsk~~ and Bering Seas. Dokl.AN SSSR 91 no.4:949-952 Ag '53.
(MLRA 6:8)

1. Akademiya nauk SSSR (for Pavlovskiy). 2. Institut okeanologii
Akademii nauk SSSR (for Lubny-Gertsyk).
(Okhotsk, Sea of--Zooplankton) (Zooplankton--Okhotsk, Sea of)
(Bering sea--Zooplankton) (Zooplankton--Bering sea)

LUBNY-GERTSYK, Ye.A.

Plankton as indicators of currents. Trudy Inst.ocean.no.13:67-70'55.
(Plankton) (Ocean currents) (MLRA 8:11)

-1

Lubny-Gertsyk, E. A.

USSR/ Biology - Marine biology

Card 1/1 Pub. 22 - 44/49

Authors : Lubny-Gertsyk, E. A.

Title : ~~Certain data on plankton distribution in the surface layer of Pacific Ocean waters near the Kuril Islands~~

Periodical : Dok. AN SSSR 101/3. 561-564, Mar 21, 1955

Abstract : Scientific report is presented by the Institute of Oceanology USSR on the plankton distribution in the upper layers of the Pacific Ocean waters near the shores of the Kuril Islands. Four USSR references (1934-1954).

Institution : Acad. of Sc., USSR, Institute of Oceanology

Presented by: Academician D. I. Shcherbakov, December 11, 1954

AUTHORS: Ponomareva, L. A., Lubny-Gertsyk, Ye. A. SOV/20-120-6-22/59

TITLE: Quantitative Plankton Distribution in the Tropical Waters of the West Pacific Ocean (Kolichestvennoye raspredeleniye planktona v tropicheskikh vodakh zapadnoy chasti Tikhogo okeana)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 120, Nr 6, pp 1246 - 1248 (USSR)

ABSTRACT: The expedition ship Vityaz' of the Institut okeanologii AN SSSR (Institute of Oceanology, AS USSR) collected samples of plankton in the region between the Japanese islands and 07° of northern latitude and between 152° of eastern longitude and the Philippines from July to October 1957. In July a cross-section was laid through the zone of mixture of the boreal waters and the Kuroshio current. In the summer of 1957 the southern boundary of the mixing zone and of the Kuroshio current was shifted to the south (as compared to the years 1954 and 1955). The biomass of plankton in the north part of the mixing zone reached 1000 mg/m³. The plankton species found are listed. The zone of tropical plankton is very wide in the region under investigation, its qualitative composition being

Card 1/3

Quantitative Plankton Distribution in the Tropical Waters SOV/20-120-6-22/59
of the West Pacific Ocean

rather uniform. In the vicinity of the great islands the biomass increases because of the water emptied into the sea. In the Solomon Sea the plankton biomass increases up to 300 mg/m³. In the region of the Bismarck Archipelago a relatively rich zooplankton is found. The biomass is richest in the mixture zone to a latitude of about 40°, it decreases, however, rapidly towards the south. The least amount of plankton was found in the zone of the north trade wind current. Presumable causes for this are given. There are 2 figures and 2 references, 2 of which are Soviet.

ASSOCIATION: Institut okeanologii Akademii nauk SSSR (Institute of Oceanology, AS USSR)

PRESENTED: January 30, 1958, by A.A.Grigor'yev, Member, Academy of Sciences, USSR

SUBMITTED: January 27, 1958
Card 2/3

Quantitative Plankton Distribution in the Tropical
Waters of the West Pacific Ocean

SOV/20-120-6-22/59

1. Aquatic animals--Pacific oceans 2. Plants--Pacific oceans 3. Aquatic animals
--Abundance 4. Plants--Abundance

Card 3/3

LUBNY-GERTSYK, Ye.A.

Composition and distribution of zooplankton in the Sea of
Okhotsk. Trudy Inst.ocean. 30:68-99 '59. (MIRA 13:5)
(Okhotsk, Sea of--Zooplankton)

LUBNY-GERTSYK, Ye.A.

Distribution of zooplakton in Kronotskiy Gulf. Trudy Inst.ocean.
36:92-100 '59. (MIRA 15:4)

(Kronotskiy Gulf--Zooplakton)

LUBNY-GERTSYK, Ye.A.

Food of the young of Cololabis saira. Trudy Inst.ocean. 45:279-
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MIROCHNIK, B., inzhener.

Operation of marine boilers on "Donbass" -type ships. Mor.flot 17
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1. Upravleniye uchebnykh zavedeniy Ministerstva morskogo flota.
(Boilers, Marine--~~Efficiencies~~)

LUBOCHKIN, Boris Isaifovich,; MELEYEV, A.S., red.; LAVRENOVA, N.B., tekhn. red.

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26(6);31(0)

PHASE I BOOK EXPLOITATION

SOV/2176

Lubochkin, Boris Iosifovich

Morskiye parovyye kotly (Marine Steam Boilers) Moscow, Izd-vo "Morskoy transport," 1958. 519 p. Errata slip inserted. 5,500 copies printed.

Ed.: V.F. Yenin; Ed. of Publishing House: L.A. Aleksandrov; Tech.
Ed.: Ye. A. Tikhonova.

PURPOSE: This is a textbook for the course "Marine Steam Boilers" for students of marine mechanics departments of higher marine engineering schools. It may also be useful to officers of the maritime fleet, students of maritime schools, and marine mechanics.

COVERAGE: The author presents the theory and fundamentals of designing modern marine steam boilers, the theory of combustion of natural fuels, and special problems of heat transfer in boilers. The design, construction, operation, maintenance, equipment, and modernization of marine steam boilers are discussed. The following

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Marine Steam Boilers

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personalities are mentioned: M.V. Kirpichev, L.K. Ramzin, V.N. Shreter, V.N. Timofeyev, G.F. Knorre, and A.M. Gurvich. There are 36 references, all Soviet.

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ANDROSOV, Boris Innokent'yevich; BOGOSLOVSKIY, Andrey Mikhaylovich;
MATVEYEV, Yevgeniy Nikolayevich; PECHENENKO, Viktor Ivanovich;
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R.I.; PLAKSIONOV, N.P. LUBOCHKIN, B.I., obshchiy red.;
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V.M., retsenzent; KOLESNIKOV, O.G., starshiy prepodavatel',
retsenzent; ALKKSANDROV, L.A., red. Prinimal uchastiye KUDINOV,
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uchilishcha (for Fayvushevich). 2. Rostovskoye-na-Donu morekhodnoye
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(Boilers, Marine)

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Prospects for the expansion of marine power plants. Sud.sil.ust.
no.1:3-6 '61. (MIRA 15:7)

1. Otdel uchebnykh zavedeniy Ministerstva morskogo flota.
(Marine engines)

LUKIN, Guriy Yakovlevich; SEMEKA, V.A., kand. tekhn. nauk, retsenzent;
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LAVRENOVA, N.B., tekhn. red.

[Steam turbines on modern seagoing ships] Paroturbinnye ustanovki sovremennykh morskikh sudov. Moskva, "Morskoi transport,"
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LUBOCHKIN, B.I., red.; SANDLER, N.V., red.izd-va; KOTLYAKOVA,
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Author : Kliment Lubomix

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Author : Lunc, M., Lubonski, J.

Inst : Institute of Basic Technical Problems, Academy of Sciences, Poland

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I. General Equations. Distribution of Density.

Orig Pub : Bull. Acad. polon. sci. Ser. sci. techn., 1958, 6,
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Abstract : A theoretical investigation was made of a gas consisting of identically charged particles, placed in a homogeneous magnetic field, parallel to an unlimited plane wall. The interaction between the particles was not taken into account. It is found that the

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LUBONSKI J.

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Author : Lunc, M., Lubonski, J.

Inst : Institute for Fundamental Technical Problems, Polish Academy of Sciences,

Title : Rarefied Electric Charged Gas in Magnetic Field. III. Gas Between Two Identical Plane-Parallel Walls

Orig Pub : Bull-Acad. polon. sci. Ser. sci. techn., 1958, 6, No 5, 257-260, XX-XXI

Abstract : An investigation is made of the properties of ionized gas, contained in the volume bounded by two parallel planes and located in the magnetic field. All the physical properties of both planes are assumed to be identical. The distributions of the density and

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velocity of the current of charged particles are found in integral form as functions of the distance δ between the planes, expressed in dimensionless units. It is shown that the particle current is equal to zero on each of the walls, and also at a point located midway between them. The maxima of the current had opposite signs and are located symmetrically relative to the mean distance between the planes. -- N.A. Kaptsov

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